

Remarks

This combined amendment and request for reconsideration of the finality of the present Office action is submitted in response to the Official Action mailed November 16, 2005.

The request for reconsideration of the finality of the Office action is based upon the rejection of claims 1, 10 and 28 under 35 U.S.C. 102(e) as being anticipated by Katayama (6,443,185). The examiner states that Katayama discloses the recited tubular structure for use with fuel systems which inherently has impermeability properties where the tubular structure comprises using polybutylene naphthalate for a single or multiple wall structure, and the material used does not specifically require a conductive agent where the term "may contain" is used, and inherently the material itself would have the same properties when not containing conductive materials, same as applicant's material.

Applicant submits that rejected claims 1, 10 and 28 were previously amended to better define the tubular structure as a single tubular structure formed from a material selected from the group consisting of polybutylene terephthalate or polybutylene naphthalate, with the proviso that the tubular structure does not include a conductive agent. The examiner's rejection of claims 1, 10 and 28 alleges that Katayama discloses a tubular structure using polybutylene naphthalate for a single or multiple wall structure and that the material used does not specifically require a conductive agent, the material of Katayama would inherently have the same properties as the present material, when not containing conductive materials. Since the examiner's rejection could have been applied to the previously presented claims, applicant respectfully contends that the finality of the present Office action is premature and should be withdrawn.

Review and reconsideration of this application are respectfully requested.

Applicant notes and appreciates the acceptance and recordation of the previously submitted terminal disclaimer.

The amendment filed August 30, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. Specifically, the term "a non-conductive matrix material" is not supported by the specification where the term "matrix" never appears in the specification.

In view of the above amendments to claims 1 and 10 wherein the term "matrix" has been canceled, it is believed that this objection can now be withdrawn.

Claims 1 and 8-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. There is no support in the specification for the term "matrix material".

In view of the above amendments to claims 1 and 10 wherein the term "matrix" has been canceled, it is believed that this rejection can now be withdrawn.

Claims 1 and 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, there is no further material claimed which would make the material a matrix material.

In view of the above amendments to claims 1 and 10 wherein the term "matrix" has been canceled, it is believed that this rejection can now be withdrawn.

Claim Rejections - 35 U.S.C § 102

(1) Claims 1 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfleger (398). The examiner alleges that the patent to Pfleger discloses the recited hose for use in an application where dissipation of static charge buildup is not required comprising a tubular structure where the innermost layer 2 consists of a wall that is made of PBT through the entire thickness of layer 2, where no conductive material is added to the layer, where the material is a matrix material when considering the other additives which can be provided therein, where inherently the material itself would have the same properties when not containing conductive materials, same as applicant's material without any further claim limitations to additives which give applicant's material special properties.

(2) Claims 1, 8-10, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito (330). The examiner alleges that the reference to Ito discloses the recited tubular for use with fuel systems which inherently has impermeability properties where the tubular structure comprises using a polyalkylene terephthalate or naphthalate such as polybutylene terephthalate, the inner layer can be formed of a single or multiple layers where elemental carbon or carbon black can be used to provide the inner layer with static dissipating properties, and where a protective cover layer can be provided which can be made of a polyolefin such as polypropylene or polyamides such as nylons, and the use of the tube for connecting to a fuel filler funnel is considered intended use, where inherently the material itself would have the same properties when not containing conductive material, same as applicant's material without any further claim limitations to additive which give applicant's material special properties.

(3) Claims 1, 9 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Brunnhofer. The examiner alleges that the reference to Brunnhofer discloses the recited tubular for use with fuel systems which inherently has impermeability properties where the tubular structure comprises using a polyalkylene terephthalate or naphthalate such as

polybutylene terephthalate, the inner layer 1 can be formed of a single or multiple layers where a protective cover layer 2 can be provided which can be made of a polyolefin such as polypropylene or polyamides such as nylons, and the use of the tube for connecting to a fuel filler funnel is considered intended use, where inherently the material itself would have the same properties when not containing conductive material, same as applicant's material without any further claim limitations to additive which give applicant's material special properties.

(4) Claims 1, 10 and 28 are rejected under 35 U.S.C. 102(e), as being anticipated by Katayama (185). The examiner states that Katayama discloses the recited tubular structure for use with fuel systems which inherently has impermeability properties where the tubular structure comprises using polybutylene naphthalate for a single or multiple wall structure, and the material used does not specifically require a conductive agent where the term "may contain" is used, and inherently the material itself would have the same properties when not containing conductive materials, same as applicant's material.

Response to Rejection - 35 U.S.C. § 102

(1) With regard to the rejection of claims 1 and 27 under 35 U.S.C. 102(b) as being anticipated by Pfleger (398), applicant submits that Pfleger teaches a multilayer hose which requires the presence of at least an inner layer that may contain PBT and an outer layer that is preferably a polyamide. Since the present hose is directed to a single layer hose containing a non-conductive material selected from the group consisting of PBT and PBN, it is believed that the present hose is neither anticipated nor rendered obvious by the teachings of Pfleger. Accordingly, it is requested that this rejection be withdrawn.

(2) With regard to the rejection of claims 1, 8-10, 27 and 28 under 35 U.S.C. 102(e) as being anticipated by Ito (330), applicant contends that Ito does not teach a single layer hose formed of a single layer of material. Ito teaches a corrugated multilayer hose for use in transporting fuel in which the inner layer is a single layer or a multilayer containing an

electrically conductive material such as carbon black (column 2, paragraph [0025]). The inner layer may be formed from a PBT or PBN, and the outer layer, which also may be a single layer or multilayer, is a nylon or polyolefin. Since the present claims specifically define a single layer hose, which specifically eliminates the presence of a conductive agent, it is believed that Ito neither anticipates nor renders the present invention obvious. Accordingly, it is requested that this rejection be withdrawn.

(3) With regard to the rejection of claims 1, 9 and 27 under 35 U.S.C. 102(b) as being anticipated by Brunnhofer (705), applicant contends that Brunnhofer, like Ito, teaches a multilayer hose for use in transporting fuel in which the inner layer which may be a single layer or a multilayer. The inner layer may be PET or PBT and the outer layer is a nylon, polypropylene, PET or PBT. While Brunnhofer does not disclose a conductive agent, it is well known in the art that where a polymeric hose is used to transport fuel, the hose must contain a conductive agent in at least the inner layer of the hose. Since the present claims have been amended to define a single layer hose, which specifically eliminates the presence of a conductive agent, it is believed that Brunnhofer neither anticipates nor renders the present invention obvious. Accordingly, it is requested that this rejection be withdrawn.

(4) With regard to the rejection of claims 1, 10 and 28 under 35 U.S.C. 102(e) as being anticipated by Katayama, applicant submits that Katayama teaches a hose which has good barrier properties against gasohol. The hose of Katayama is not effective in transporting gasoline. While the tubular structure of the hose of Katayama may be PBT or PBN, a phosphate is also required as a necessary ingredient. Since phosphates are neither required nor desired in the tubular structure of the present invention, it is believed that Katayama neither anticipates nor renders the present invention obvious. Accordingly, it is requested that this rejection be withdrawn.

Summary


The present invention as presently claimed is directed to a hose for use in applications where dissipation of static buildup is not required. The hose is a single tubular structure formed from polybutylene terephthalate or polybutylene naphthalate, and the polybutylene terephthalate or polybutylene naphthalate extends throughout the entire single tubular structure. Furthermore, the claims specifically exclude the presence of a conductive agent. The exclusion of a conductive agent such as carbon black in the tubular structure of the present invention has been shown to improve the strength and durability of the polybutylene terephthalate or polybutylene naphthalate hoses when compared to comparable polybutylene terephthalate or polybutylene naphthalate hoses that contain such conductive agents. The examiner's attention is directed to the last 5 lines of page 2 of the specification which states "While the single layer hose of polybutylene terephthalate or polybutylene naphthalate exhibits all of the above characteristics, it has now been found that the strength and durability of such hose which contains a conductive agent are less than the strength and durability of a polybutylene terephthalate or polybutylene naphthalate hose which does not contain a conductive agent." Such improvement has neither been shown nor recognized by the prior art. Accordingly, it is believed that the present invention represent a significant improvement over the art and, as such, should be deemed allowable

The hose of the present invention is useful in a variety of applications where dissipation of static electricity buildup is not required. For example, the present hose is useful as automobile gasoline fuel vent hoses, industrial hydraulic hoses, torque converter hoses, power steering hoses, air conditioner hoses, brake fluid hoses, compressed gas hoses, refrigerator hoses, garden hoses, propane gas hoses, etc., but are not useful as gasoline fuel transport hoses because of the absence of a conductive material which is required in such applications to prevent static electricity buildup.

In view of the foregoing amendments and remarks, it is believed that the present application is now in condition for allowance and an early indication thereof is earnestly solicited.

Respectfully submitted,

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